PROJECT DESCRIPTION

I. GENERAL

This project involves the construction of aTraffic Control Signal with street lighting at the intersection of MD 8 and Bay City Road in Queen Anne's County. MD 8 is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA three-phase, semi-actuated mode, with the MD 8 approaches running concurrently. The Bay City Road approach shall operate by itself .

2. A full-traffic-actuated, eight-phase controller with one (1) four channel, rack mount loop detector amplifier and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

3. The pole on the northeast quadrant of the intersection shall be installed with the top of the foundation being 6" above the elevation of the crown of the road. The area around the pole and handhole shall be excavated to provide positive drainage into the existing ditch, with a 2 to 1 maximum slope.

4. The pole on the northeast quadrant of the intersection is covered by an Easement Agreement between the Maryland DOT State Highway Administration and the Queen Anne's County Department of Parks and Recreation.

5. The 4" PVC bore under MD 8 must be at a depth of at least 36" below the elevation of the ditch on the eastside and run into the bottom of the proposed handhole. This is being done to avoid future storm drain pipes that will be run under the proposed driveway.

6. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9081	Eight-phase, full-traffic actuated, solid state digital controller with a 4-channel, rack mount loop detector amplifier housed in a NEMA size "6 " base-mounted cabinet.	1 EA
9089	Sheet aluminum signs to consist of:	32 SF
	W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted with hardware.	2 EA
9090	Sheet aluminum signs to consist of: (Blue or Green)	16 SF
	D3-2 "Bay City Rd (arrow) (arrow) Bay City Rd" dual faced sign (variable x 32") mast arm mounted.	1 EA

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2001	Class 2 Excavation.	10 C.Y.
2002	Test Pit Excavation	3 C.Y.
5005	24" white heat applied permanent preformed thermoplastic pavement marking.	70 L.F.
5008	Remove existing pavement markings - any width.	120 L.F.

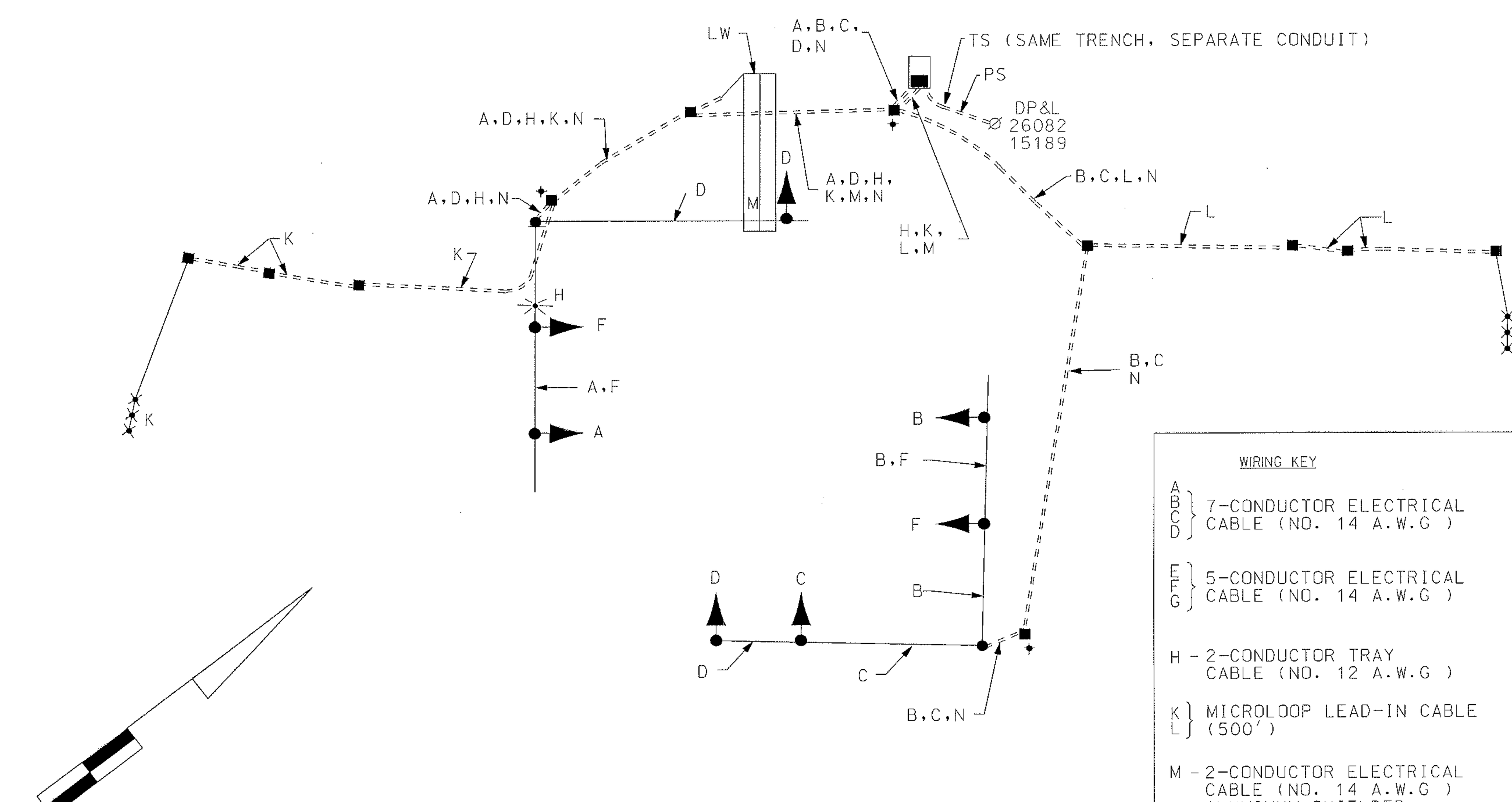
EQUIPMENT LIST (CONT.)

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
8011	Furnish and install 12" vehicular traffic signal head section	18 EA
8013	Furnish and install 15' bracket arm for traffic signal structure.	1 EA
8014	Furnish and install 250 watt HPS Luminaire with photocell.	1 EA
8019	Furnish and install 8 inch vehicle signal head section	3 EA
8020	Furnish and install control and distribution equipment (120/240 V, 1 phase 3 wire system).	1 EA
8029	Furnish and install microloop probe set with 500' lead-in	2 EA
8035	Furnish 27' mast arm pole and twin 50'/70' mast arms (standard)	1 EA
8035	Furnish 27' mast arm pole and twin 50'/70' mast arms (reversible)Install steel pole and twin mast arms (any size).	1 EA
8051	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched	490 EA
8052	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	110 L.F.
8053	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trenched.	30 L.F.
8057	Furnish and install concrete for signal foundation.	13 C.Y.
8059	Furnish and install wood sign supports 4" x 6".	31 L.F.
8060	Furnish and install No. 6 AWG stranded bare copper ground wire.	260 L.F.
8064	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - bored.	380 L.F.
8068	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.	25 L.F.
8072	Furnish and install electrical handhole.	11 EA
8074	Install ground mounted sign.	32 S.F.
8075	Install overhead sign.	16 S.F.
8080	Furnish and install ground rod -3/4" x 10'.	3 EA
8081	Furnish and install electrical cable - 2 conductor (aluminum shielded).	60 L.F.
8084	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	60 L.F.
8085	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	610 L.F.
8086	Furnish and install tray cable - 2 conductor (No. 12 AWG).	175 L.F.
8087	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	450 L.F.
8088	Furnish and install saw cut for signal (loop detector).	110 L.F.
8091	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trenched	50 L.F.
8093	Install controller and cabinet base mount.	1 EA

PHASE CHART

	1 (R Y G)	2 (R Y G)	3 (R Y G)	4 (R Y G)	5 (R Y G)	6 (R Y G)	7 (R Y G)
PHASE 2 & 6	G	G	G	G	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	G	G	G
4 CHANGE	R	R	R	R	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R



WIRING KEY

A, B, C, D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

E, F, G } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

H - 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

K, L } MICROLOOP LEAD-IN CABLE (500')

M - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) ALUMINUM SHIELDED

N - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

LW - LOOP WIRE (NO. 14 A.W.G.)

PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY CONECTIV

TS - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY VERIZON

✦ - GROUND ROD

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,N.W.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

4064GI.dgn TASK-32

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

MD 8 AND BAY CITY ROAD

DRAWN BY:	SR BARANOWSKI	F.A.P. NO.		TS NO.	SHEET NO.
CHECKED BY:	RR ZACHERL	S.H.A. NO.	QA231A51 [illegible]		
SCALE:	NONE	COUNTY:	QUEEN ANNE'S	T.I.M.S. NO.	
DATE:	12-04-01	LOG MILE:		E 859	2 OF 2